

REMARKS

The Examiner has rejected the application on various bases. In response thereto, Applicant has amended the application so as to place same in *prima facie* condition for allowance at the present time.

The Examiner has rejected claims 1 through 13 under 35 U.S.C. §112 based on the contention that they are indefinite. More specifically, the Examiner has indicated that the term "suppression component" is indefinite in claims 1, 2, 7, 8, 9, 10 and 13. Additionally, the Examiner has identified the term "approximately" in claim 6 as indefinite. Finally, the Examiner has identified the term "optionally" in claim 9 as indefinite.

With respect to "suppression component", Applicant submits that the term is defined with particularity in the specification. In particular, the suppression component is described in paragraph [0028] as comprising a propylene glycol which is impregnated into the bones after the curing process. Further materials other than propylene glycol are identified further in the same paragraph. In addition, the application in paragraph [0033] describes how the suppression component is introduced during fabrication of the bone. The advantage of the suppression component is explained in paragraph [0035], stating that there are remarkable improvements in dust reduction, chipping and cracking – problems that were identified in the background of the invention, at paragraph [0004]. Thus, the definition, the scope, the application and the benefit of the suppression component is described in the specification with particularity.

With respect to claim 6, the term "approximately" should not be deemed indefinite. Solely for purposes of expediting the prosecution of the application, Applicant has amended "approximately" to "about" so as to track the specification at paragraph [0031]. Accordingly, this issue should be deemed moot.

With respect to claim 9, Applicant has amended the claim so as to remove the term "optionally." In turn, Applicant submits that this issue is moot. In light of the foregoing, Applicant submits that all of the issues relative to 35 U.S.C. §112 should be deemed overcome.

The Examiner has rejected claims 1-3, 5-9 and 13 under 35 U.S.C. §103 based on the contention that it is unpatentable over U.S. Pat. No. 4,106,219 issued to Schneider et al (the '219 patent) in view of U.S. Pat. No. 6,520,775 issued to Lee (the '775 patent). Additionally, the Examiner has rejected claim 4 under 35 U.S.C. §103 based on the contention that it is unpatentable over the '219 patent in view of the '775 patent in further view of the U.S. Pat. No. 6,471,519 issued to Biermann et al (the '519 patent). The Examiner has rejected claims 9, 11 and 12 under 35 U.S.C. §103 based on the contention that they are unpatentable over the '219 patent in view of the '775 patent in further view of U.S. Pat. No. 6,008,430 issued to White (the '430 patent). The Examiner has rejected claim 10 under 35 U.S.C. §103 based on the contention that it is unpatentable over the '219 patent in view of the '775 patent in further view of the '430 patent in further view of U.S. Pat. No. 5,082,803 issued to Sumita (the '803 patent). Applicant traverses the Examiner's rejection.

In particular, Applicant's invention as claimed includes one or both of a suppression component and a x-ray component. The suppression component greatly reduces the brittle nature of the open cell foam, thereby reducing the chipping, dusting and cracking thereof. In turn, the artificial bone behaves substantially more akin to a real bone. The suppression component can comprise propylene glycol (optionally tinted with a red dye), as well as other materials, such as ethylene glycol, among others. The x-ray component is dispersed within the closed cell substrate material. The prior art does not show the use of any suppression component, and does not

contemplate the use of an x-ray component which is dispersed within the closed cell substrate material.

First, none of the references disclose any "suppression component," as described and claimed. The x-ray component is not shown to be positioned within a structure, and more specifically dispersed within a bone. As identified in the prior art and in the '775 patent, a conductive (and radio opaque) material is coated upon the a bone or tooth. Such coatings are topically applied to the bone. As such, they do not extend throughout the bone structure. One drawback of such an embodiment is that when the bone is cut, broken or otherwise manipulated, the coating does not extend to the newly exposed bone features. In turn, the resulting bone does not mimic a real bone on an x-ray.

On the other hand, by dispersing the x-ray component throughout the substrate, the x-ray properties extend throughout the substrate (i.e., the artificial bone). As such, manipulation of the bone does not destroy or affect the x-ray properties of the overall bone. Such a structure is not disclosed or contemplated by the references.

Accordingly, none of the references disclose or suggest a bone which includes an x-ray material dispersed throughout the substrate material, or an artificial bone wherein a suppression component is impregnated through the artificial bone to minimize dusting, chipping and cracking during manipulation of the bone.

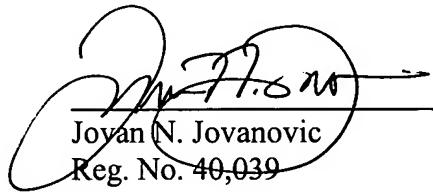
In light of the foregoing, Applicant submits that claims 1 through 13 should be deemed allowable at the present time. Reconsideration is respectfully solicited.

If any other charges or fees must be paid or credited in connection with this communication, they may be paid out of our Deposit Account No. 50-2131.

Respectfully submitted,

KING & JOVANOVIC, PLC

Dated: 10/11/04



Jovan N. Jovanovic
Reg. No. 40,039

KING & JOVANOVIC, PLC
170 College Avenue, Suite 230
Holland, Michigan 49423
Phone (616) 355-0400
Facsimile (616) 355-9862